

Appl. No. 09/746,462

Claim 30 (new): A transformer according to claim 26 further comprising a first air gap inserted across the one marginal portion between the first primary and secondary windings.

Claim 31 (new): A transformer according to claim 30 further comprising a second air gap inserted across the other marginal portion between the second primary and secondary windings.

### **REMARKS/ARGUMENTS**

Applicant notes with appreciation that the Examiner has allowed claims 14 to 18. These claims are retained unchanged.

Applicant also notes that the Examiner has indicated that dependent claims 2 to 4 would be allowable if re-written in independent form including all of the limitations of the base claim any intervening claims. It is noted that new claim 26 is identical to dependent claim 2 written in independent form and new claims 27 and 28 correspond to former claims 3 and 4 but dependent on new claim 26. New claims 29 to 31 are new claims based on claims 5 to 12 but dependent on claim 26. As claim 26 is allowable, all of the dependent claims should be allowable.

It is noted also that, in the Office Action dated July 8, 2003, the Examiner indicated that claims 2 to 4 in the application at that time would be allowable if re-written in independent form including all of the limitations of the base claim and any intervening claims. Amended claim 2 is an independent version of claim 2 in the application as of July 8, 2003 and should, therefore, be allowable. Claims 3 to 13 are all dependent directly or indirectly on amended claim 2 and should also be allowable.

Thus far, all of the claims discussed above contain subject matter that the Examiner indicated to be allowable.

Claims 1, 6, 10 and 12 were rejected under 35USC 102(b) as being anticipated by Crowe (U.S. 4,788,448). As claim 1 has been cancelled and claims 6, 10 and 12 are dependent directly or indirectly on allowable claim 2 the Examiner is respectfully requested to withdraw this rejection.

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Claims 5, 7-9, 11 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Crowe in view of Barrett (U.S. 5,737,203). As all of those claims now depend directly or indirectly on allowable claim 2 the Examiner is respectfully requested to withdraw this rejection.

Claim 19 was rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett in view of Bolduc *et al* (U.S. 4,766,365).

Claim 19 has been amended to incorporate all of the claim features of cancelled claim 1. In particular, claim 19 recites:

“the at least one second primary winding and the at least one second secondary winding not being directly connected to respective ones of the at least one first primary winding and the at least one first secondary winding”.

With reference to Figures 3E and 3F and column 10, lines 39 to 55, of Barrett, it is seen that a first primary winding 60 is wound on one half of a first leg 44 of a core 42 and its counterpart, a second primary winding 62, wound on the same half of second leg 46 of core 42. The first primary winding 60 is connected in series to second primary winding 62. Similarly, a first secondary winding 64 is wound on one half of first leg 44 of core 42 and is connected in series with a second secondary winding 66 which is wound on the comparable half of second leg 46 of core 42. In particular, in Figures 3E and 3F of Barrett the first primary winding 60 and the second primary winding 62 are directly connected to each other and conduct the same current. Similarly, the first secondary winding 64 and the second secondary winding 66 are also directly connected to each other and conduct the same current. As such, the windings in Barrett are not as defined in amended claim 19.

Regarding Bolduc *et al.*, in Figure 1 of Bolduc *et al.* an alternating current winding 9a and a direct current control winding 10a are disposed around an outer limb 3, while an alternating current winding 9b and a direct current control winding 10b are disposed around an outer limb 4. The windings 9a and 9b are serially interconnected and the windings 10a and 10b are also serially interconnected (see Figure 1 and column 3, lines 42 to 49 of Bolduc *et al.*). More specifically, in Figure 1 the windings 9a and 9b are shown directly connected to each other and the windings 10a and 10b are also directly connected to each other. This is also the case for

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Figure 3 of Bolduc *et al.* Finally, in Figure 2 of Bolduc *et al.* a superposition of the windings 9a and 10a and of the windings 9b and 10b is shown (see column 5, lines 44 to 52). In Figure 2 the winding 9a is not shown being directly connected to winding 9b and winding 10a is also not shown being directly connected to winding 10b; however, it is to be understood that Figure 2 shows only a portion of the circuit of Figure 1 and that although not shown in Figure 2 the windings 9a and 9b are directly connected to each other and windings 10a and 10b are also directly connected to each other. As such, Bolduc *et al.* also do not disclose the above feature of amended claim 19.

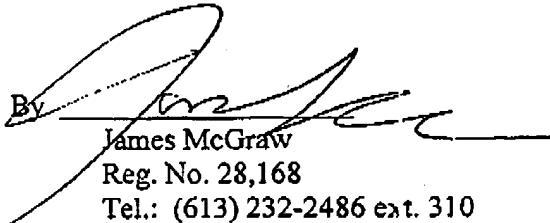
As neither Barrett nor Bolduc *et al.* discloses the claimed feature "the at least one second primary winding and the at least one second secondary winding not being directly connected to respective ones of the at least one first primary winding and the at least one first secondary winding" the Examiner has not made a *prima facie* case of obviousness. Accordingly, the Examiner is respectfully requested to withdraw the 35 U.S.C. 103(a) rejection of claim 19.

Finally, new claims 20 to 25 have been added. Each one of claims 20 to 25 depends directly or indirectly on claim 19 and should also be allowed for at least the same reasons that claim 19 is allowable.

In view of the forgoing, early favorable consideration of this application is earnestly solicited.

Respectfully submitted,

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